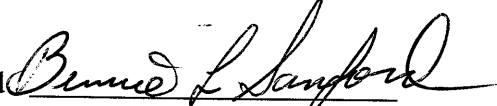# OPERATING PROCEDURES

FOR THE

NAS Information Architecture Committee

(NIAC)

April 2002

Revision A

Approved _____
Co-Chairperson, ATS

Approved _____
Co-Chairperson, ARA

Approved _____
Co-Chairperson, AIO

Table of Content

Operating Procedures
For the
NAS Information Architecture Committee (NIAC)
Part 2: Administrative Procedures

1.0   INTRODUCTION

1.1   Purpose

The purpose of this document is to establish the procedures for accomplishing the
responsibilities assigned to the NAS Information Architecture Committee (NIAC). This
committee is responsible for developing data standards for commonly shared NAS data
and acting as a pre-screening organization for NAS data standards, as approved and
authorized by the National Airspace System (NAS) CCB, in accordance with FAA Order
1800.66, NAS Configuration Management. "NAS Data" is defined as the data shared
among NAS applications and specified in Interface Requirements Documents that are
configuration managed by the NAS CCB. The data standardization products for which the
NIAC is responsible will be presented to the NAS CCB for final approval.

1.2   Scope

This document identifies the responsibilities and administrative procedures for the NIAC.
As a result of any future changes in organizational roles and system development
strategies, as well as process improvement initiatives, the NIAC Charter and Operating
Procedures will be revised as necessary to better support the management and evolution of
the NAS data standards. The NIAC Co-Chairs shall approve all revisions to this
document.

1.3   Guiding Principles

The NIAC is a product-centric organization. The guiding principle is that the NIAC,
including each of the organizational elements defined in Section 2, accomplishes its goals
by working and reporting to plans that define specific end items, the intended recipients,
and the schedule for their development and delivery.

The NIAC is an FAA-wide coordination body for changes relating to NAS data standards.
The NIAC is responsible for coordinating changes both with NIAC members and across
all affected FAA organizations. The guiding principle is that before any changes are
formally transmitted to the NAS CCB, all changes shall be fully coordinated and all
issues shall be resolved within the NIAC's scope and authority.

The NIAC is an open organization that welcomes the participation of all persons having an interest in NAS Data Standards. The guiding principle is that individuals from the FAA, the NAS user community, and those private organizations that support or are associated with the FAA are welcome to participate in and contribute to the workings of the NIAC. All such participation is subject, however, to limitations defined in this document and augmented by specific Terms of Reference for individual NIAC Teams and Working Group.

The NIAC employs decision-based management to meet its responsibilities and achieve its goals. The guiding principle is that NIAC decisions, including those of the organizational elements defined in Section 2, shall be based on a formal vote of that organization's members. The specifics of membership and the quantitative aspects of voting are defined in Sections 2 and 3, respectively.

2.0   PARTICIPANT RESPONSIBILITIES

The NIAC is organized into three permanent bodies: Co-Chairs, Core Committee, and Executive Secretary. In addition, the NIAC is supported by a number of goal-specific, defined-lifetime Working Groups, as illustrated in Figure 2-1, NIAC Organization.

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                    │    Co-Chairs    │
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│     Case file     │ │    Forum    │ │   Infrastructure   │
│  Working Groups   │ │Working Group│ │   Working Groups   │
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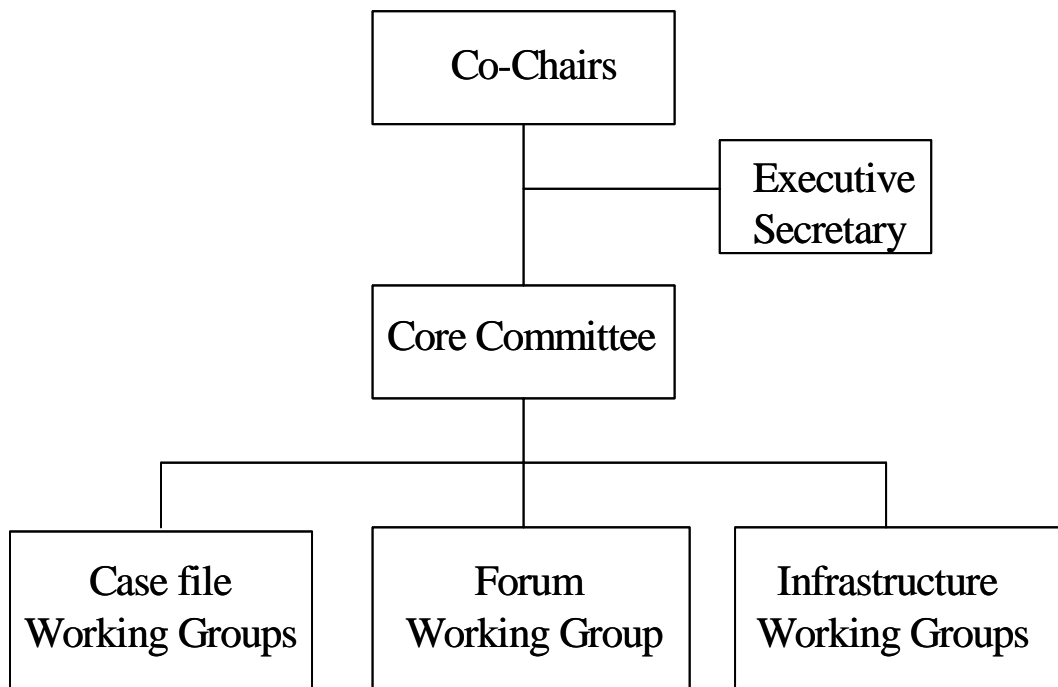
Figure 2-1. NIAC Organization

2.1   Co-Chairs (assisted by the NIAC Executive Secretary):

The Co-Chairs are the overall management body of the NIAC. The Co-Chairs are appointed by the heads of ATS, ARA, and AIO and are empowered to speak and act for those organizations in matters relating to NAS data standards.. The Co-Chairs are equally responsible for managing the NIAC. This responsibility includes the following:

a. Approve NIAC Operating Procedures and initiate revisions and enhancements.
b. Preside over the NIAC business meetings.
c. Act as prescreening authority for changes presented to the NIAC, including signing NAS data standard case files before they are submitted to the NAS CCB.
d. Coordinate meeting agendas and change review packages with the Executive Secretary.
e. Approve the Term of Reference (TOR) [1] for the NIAC Working Groups.
f. Ensure that proposed changes are thoroughly evaluated for technical, interface, quality assurance, cost, financial, policy, schedule, safety impacts, supportability, and life cycle implications.
g. Ensure that implementation actions specified on CCDs, which are under NIAC jurisdiction, are completed as specified in the CCD.

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[1] A Template for a ToR is included in Appendix B.

h. Ensure adherence to the provisions of the NIAC Charter and to the NIAC Operating Procedures.

2.2   NIAC Executive Secretary:

The Executive Secretary is the administrative agent of the NIAC. The Executive Secretary is appointed by the head of ASD. The Executive Secretary provides the NIAC and its Working Groups with the infrastructure required to perform their responsibilities, as defined in the NIAC Charter. The Executive Secretary is responsible for the following:

a. Receive, process, and coordinate case files for formal review and signature by Core Committee members and Co-Chairs.
b. Schedule and facilitate NIAC meetings under the authority of the Co-Chairs and the Core Committee; prepare and distribute meeting notifications, agendas and change review packages; prepare and distribute official minutes for NIAC business meetings.
c. Maintain the NIAC web site and publish relevant products, meeting materials, and announcements as required to support NIAC operations.
d. Provide NIAC and its Working Groups with access to appropriate, secure, telephonic video, or web based collaborative discussion tools such as CDIMS[2].
e. Interface with the NAS CCB and coordinate the review and disposition of case files forwarded from the NIAC to the NAS CCB.
f. Maintain all pertinent NIAC records to support historical records retention and audit requirements.
g. Ensure coordination with appropriate Core Committee members for all case files.
h. Notify NIAC of action items assigned by the NAS CCB.
i. Assist the Working Groups with scheduling and facilitation for their meetings.
j. Establish and manage a NIAC process for tracking and resolving issues and action items for use by Co-Chairs, Core Committee, and Working Groups.

2.3   Core Committee:

The Core Committee is the operations team of the NIAC. Core Committee members are appointed by the heads of their respective organizations and are empowered to speak and act for those organizations in matters relating to NAS data standards. Core Committee members are the official interface between the NIAC and their organizations. A Core Committee member's responsibilities are as follows:

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[2] Collaborative Data Integration Management System, or CDIMS, is a Lotus Notes internet-based collaborative groupware tool.

a   Coordinate the activities of NIAC Working Groups by:

1) Establishing overall goals and direction for each Group
2) Designating a Leader for each Group
3) Reviewing the Terms of Reference (ToR) document describing a Group's planned products and completion schedule and recommending it for Co-Chair approval.

b   Attend all NIAC business meetings and represent the product and functional interests of their organizations. Core Committee members are considered to have full authority to commit their respective functional elements. A member who cannot attend a business meeting personally is responsible for

1) sending a surrogate who is empowered to make decisions on behalf of the parent organization; or
2) in the case of specific decisions that have been defined in a published agenda for a given meeting, submitting a proxy vote to the Executive Secretary.

c   Review the change packages provided by the Executive Secretary prior to the business meeting and represent the position of their organizations.
d   Advise and counsel the Co-Chairs to ensure all technical, quality assurance, interface, schedule, cost, financial, policy, safety impacts, supportability and life cycle implications are considered when making a decision on proposed changes.
e   Accept and accomplish action items assigned by the Co-Chairs.
f   Ensure a quorum at all Core Committee meetings so as to enable the group to make formal decisions.
g   Inform the Executive Secretary of the status of:

1) Assigned action items.
2) Any known or suspected discrepancies from the NIAC controlled baselines.
3) Changes to organizational responsibilities, mailing addresses and phone numbers, evaluators, or reviewers.

2.4   Working Groups:

The NIAC Working Groups are the grass-roots performers of the NIAC. They conduct the primary businesses of the NIAC, i.e., preparing NIAC submittals to the NAS CCB, including, but not limited to case files and prescreening packages. They also perform specialized tasks, including planning and conducting NIAC Technical Forums and developing the tools that the NIAC requires to conduct its business. The Working Groups are individually established by the Core Committee and authorized by the Co-Chairs to achieve a specific mission. Membership in an individual Group is initially

established by the Core Committee, and then refined by the Group itself, with the concurrence of the Core Committee. All Working Groups have the following general responsibilities:

a. Define Group membership and organization to achieve the specific scope, goals, approach, and product set established and communicated by the Core Committee.
b. Prepare the Terms of Reference (ToR) document describing the Group's planned products and completion schedule and submit it for core Committee review and subsequent Co-Chair approval.
c. Perform according to the approved ToR.
d. Deliver the products defined in the approved TOR according to the schedule in that ToR.
e. Report the status of the Group's efforts to the Core Committee.

2.4.1   Case File Working Groups

Case File Working Groups are established to perform the core business of the NIAC, i.e., the development of NAS data standards. They are also responsible for generating and following up on the case file for those data standards. In addition to general responsibilities described above, specific responsibilities of each Case File Working Group include the following:

a. Utilize the CDIMS tool for recording Group decisions and include pertinent collaborative CDIMS discussions, issues, and voting results in the case file.
b. Forward the completed final draft of the case file of proposed new or revised data standards to the Executive Secretary for NIAC decision.
c. Present and support the case file at the NIAC business meeting.
d. Monitor the proposed new or revised data standards from initiation to publication.

2.4.2.   Forums Working Group

The NIAC Forums Working Group is established to perform the historical business of the NIAC, i.e., planning and conducting technical-interchange forums. In addition to general responsibilities described above, specific responsibilities of the Forums Working Group include the following:

a. Define a one-year agenda, goals, and guidelines for technical, information-exchange forums relating to data standards and information architecture.
b. Define, schedule and conduct technical information-exchange forums in accordance with the approved agenda, and to support specific needs defined by the Co-Chairs, Core Committee or Working Groups.

2.4.3. Infrastructure Working Groups

Infrastructure Working Groups are established to identify, analyze and implement such tools and procedures as are needed to help the NIAC perform its core business. In addition to general responsibilities described above, specific responsibilities of the Infrastructure Working Groups include the following:

a. Collaborative tools…
b. FAA Data Registry coordination and liaison….

2.5   Other NIAC Participants

The Co-Chairs, Core Committee, and/or the individual NIAC Working Groups may acquire the services of a specific domain expert to participate in or become an ad hoc member of a specific NIAC activity. In such cases, the participant's responsibilities will, in addition to specific responsibilities defined by the acquiring NIAC organization, include the following:

a. Work as an extension of the acquiring organization and within that organization's rules and procedures, e.g., ToR.
b. Evaluate proposed changes, as requested.
c. Attend or participate in specific NIAC meetings, as requested.
d. Advise and counsel the Co-Chairs and Core Committee members when specialized knowledge in their areas of expertise is required.
e. Provide technical studies and presentations, upon request, to assist the NIAC in its disposition of changes.

3.0   ADMINISTRATIVE PROCEDURES

The NIAC change processing flow is shown in Figure 3-1, NIAC Standards Process Flow.[3] The data standardization process itself is covered under a separate document.

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[3] Rhoades, R., "Proposed Process for Data Standardization", MITRE Corporation, September 2000.
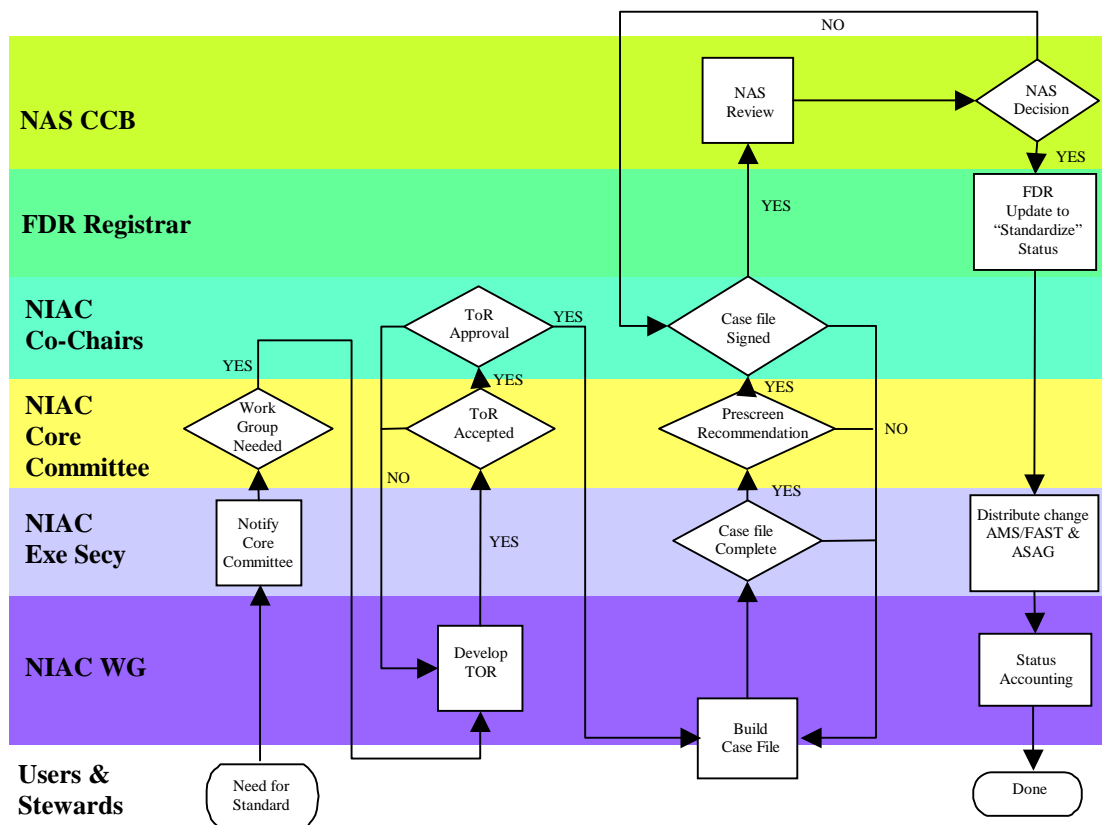
Figure 3-1. NIAC Standards Process Flow

3.1 Scheduling Meetings

a The Executive Secretary shall identify case files for inclusion in business meeting when:

1) All coordination/review has been completed, including the review for case files.
2) Copies of all coordination/summary materials have been attached as background information.

b The Executive Secretary shall schedule NIAC business meetings on a regular basis, as determined by the NIAC Co-Chairs.

c Announcement for the business meeting time and place will be distributed to Co-Chairs, Core Committee members, and all Working Group leads.

3.2 Agenda and NIAC Change Package Preparation and Distribution

a. The Executive Secretary shall prepare a meeting agenda and any other associated materials:

1) Status of deferred changes, which will be addressed.
2) Each case file to be addressed at the meeting, as well as the person responsible.
3) Status of action items from previous meetings, which are due for consideration, along with the person/organization responsible for providing the information.
4) Each open action item to be addressed and the individual/organization responsible for providing status information.
5) Other items for discussion.
6) Status of pending case files.

b The Executive Secretary shall assemble and distribute the review packages containing the meeting notice, agenda, changes, and action items to be considered. Distribution will normally occur within ten (10) working days prior to the business meeting.

3.3 Conduct of Business Meeting

a The NIAC Co-Chairs shall preside over the meeting. The Executive Secretary shall assist as required, record the minutes, and note assignment of action items.
b The Executive Secretary shall introduce each proposed change. The originator (normally the Working Group lead) will summarize the proposed change to the members and discuss its significance and impact. Core Committee members will then discuss the proposed changes, present any organizational and functional concerns, and make recommendations to the Co-Chairs.
c The Co-Chairs shall recommend approval, disapproval, or deferred action on a case file pending clarification of outstanding issues or availability of additional information. Action items to clarify issues shall be assigned to a specific individual/organization with a specified completion date.
d Relevant open action items from previous meetings shall be addressed by the responsible persons.
e The Executive Secretary will present the implementation status of previously approved case files.

3.4 Guidelines for briefing presentation.

a The following is a suggested list for proposing Working Group products

1) List of proposed standards/document
2) Change number and title
3) Originator (Working Group Lead)
4) Synopsis of proposed change (how it is currently, what is the problem or deficiency, and how the change will correct it)
5) Performance, operational, technical, supportability, life-cycle implications and/or safety impacts if applicable
6) Interface issues and summary of coordination, if applicable
7) Cost, schedule, life cycle costing estimates and budget impacts (by fiscal year) and how they were estimated
8) Other benefits or risks associated with this change
9) Implementation plans, schedules, or requirements
10) Summary of coordination and comment resolution
11) Recommendation(s)

b   A copy of any formal presentation materials shall be provided to the Executive Secretary for distribution to Core Committee members at least ten (10) days prior to the business meeting.

3.5   Preparations and Distribution of Minutes

a. Minutes of each NIAC business meeting shall be recorded by the Executive Secretary and reviewed by the Co-Chairs prior to distribution.
b. The minutes shall be uniquely numbered to identify the NIAC and the specific meeting date.
c. The minutes will contain the following:
d. List of attendees
e. List of all changes presented at the meeting
f. List of action items discussed and/or initiated, including status, and individuals/ organizations responsible
g. Summary of items discussed in the meeting
h. After Co-Chair review, the minutes and applicable presentation materials shall be distributed to all meeting attendees, posted on the NIAC web site, and archived. Minutes shall be distributed within ten (10) working days after the meeting.

3.6   NIAC Decisions

The Co-Chairs will recommend the disposition of and sign each case file once all positions have been heard. The decision may include:

a   Recommend CCB Approval as written or with revision. The case file will document any changes not coordinated during the review with the originating organization.

b   Recommend CCB Disapproval. The Executive Secretary will ensure the reason is clearly recorded on the case file and provided in a timely manner to the originator or sponsor.

c   Defer to the next meeting. An action item will be specifically assigned for any proposed change, which necessitates specific action be taken prior to reconsideration by the NIAC (such as a requirement for additional information, etc.).

3.7   Preparations and Dissemination of Case files

The Working Group leads will forward the completed case file to the Executive Secretary. It is recommended that the Working Group leads utilize the Collaborative Discussion Management System (CDIMS) to record their issues discussions and consensus voting.

The Executive Secretary shall forward the signed case file to ACM control desk for NCP number assignment and NAS CCB processing in accordance with the National Procedures. A draft CCDs will also be provided for the final approval by the NAS CCB Co-Chairs.

Appendix A - Acronym List

CCB   Configuration Control Board

CCD   Configuration Control Decision

CDIMS   Collaborative Data Integration Management System

FAA   Federal Aviation Administration

FDR   FAA Data Registry

NAS   National Airspace System

NCP   NAS Change Proposal

Appendix B – Template for a Working Group Terms of Reference (ToR) document

Name of Working Group

Terms of Reference

Background
Provide a 1-paragraph summary of the relevant need(s) and/or issue(s) that form the basis for this particular Working Group.

Scope
Provide a concise statement of the problem scope, the overall work that will be performed, and the rationale for the timeframe required for its completion. Reference the specific document that describes the scope, goals, approach, and product set established by the Operations Team.

Action Plan
Briefly describe the sequence of tasks that will be performed to achieve the goals and develop the products described in the Scope (above). Identify the specific products (e.g., draft and final Case File packages, white paper(s), technical briefing(s), final report, etc.) to be developed, including the intended recipient or audience for each. Where applicable, identify specific inputs, , or considerations that are key to the successful, timely completion of each task.

Product Schedule
Specify the date on which each task is scheduled to be completed and on which the delivery of each product is scheduled to occur. Indicate any dependencies between individual tasks.

Membership
Identify the Organizations that will provide members, and the names of those individuals. Identify the Chairperson(s) for the Group.

Note: Terms of Reference will be a NIAC agenda item and the minutes of the NIAC forum/meeting addressing the creation of a Working Group will explicitly record the conclusions. The approval of the ToR will be considered a formal recommendation of the NIAC, thereby requiring the signatures of the NIAC Co-Chairpersons.